ERDLE PERFORATING COMPANY, INC.

Soil and Groundwater Sampling Report

February, 1987

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INTRODUCTION:

This report contains information pertaining to a soil and groundwater sampling program at Erdle Perforating Company, Inc. The program was conducted January 6-9, 1987, by Day Engineering of Rochester, New York.

Erdle Perforating Company is involved in the manufacture of various types of perforated metal sheets. Erdle uses a variety of lubricants in its perforating processes. These lubricants are removed from the finished product through degreasing. Trichloroethene is used as the degreasing solvent. At the time of this study, waste trichloroethene was accumulated in an underground tank behind the building, prior to shipment off-site for disposal. The tank was installed for this purpose in the late 1960's or early 1970's. The capacity of the tank is about 2000 gallons.

Erdle also generates waste cutting oil, which is accumulated in another underground tank prior to shipment off-site for disposal. This tank is installed next to the waste solvent accumulation tank.

The soil and groundwater sampling program was conducted to determine if halogenated solvents are present in the soils and

groundwater in the vicinity of the underground tanks. The purpose of this environmental assessment was to identify potential exposures, and to develop a corrective action plan if warranted.

Since the time of the sampling, the tank has been emptied and taken out of service because it failed an initial air pressure test on February 5, 1987. The test was conducted because water had been found in the waste solvent, indicating groundwater infiltration. The determination was made that the tank was unfit for use. It was decided that, although it was not known whether a release had occurred, the incident would be treated for reporting purposes as a release of hazardous waste to the environment.

The incident was reported that day to Mr. Paul Lindenfelser of the Region 8 Office of the New York State Department of Environmental Conservation, and to Mr. Doug Kodama of the Region II Office of the United States Environmental Protection Agency at approximately 4:30 p.m. A written incident report was submitted to the Department of Environmental Conservation February 18, 1987.

FIRLD WORK DESCRIPTION:

Three bore hole locations were selected to represent conditions in the vicinity of the underground waste solvent accumulation tank. One location in front of the building was used to represent background levels in the area (see Diagram 1).

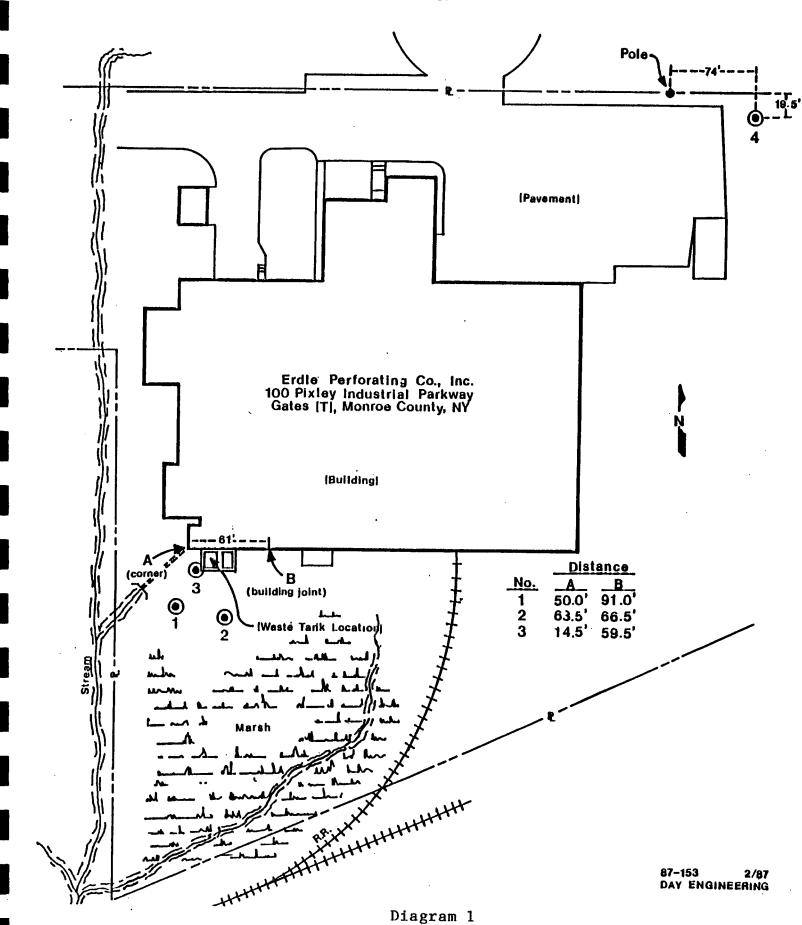
During the sampling program, temperatures were generally just above freezing, and the ground was wet much of the time. Also, there was intermittent light precipitation, mainly in the form of wet snow or rain. Little or no frozen soil was encountered.

The borings were performed using a hand-held power-driven auger. The auger bit and each 3-foot extension were cleaned in the field before use with a deionized water rinse, followed by a methanol rinse, and a final rinse of deionized water. Between boring locations, the auger bit and each 3-foot extension were scrubbed with detergent and rinsed. In addition, the auger bit was cleaned using the methanol rinse method described above.

Soil samples were obtained using a standard split-spoon soil coring tool. The spoon was driven through the soil using a free-falling hammer. The hammer fell through a vertical drop of 22 inches along a hexagonal shaft. The number of blows required to drive the spoon twelve inches was recorded for each core as an indication of soil density.

SAMPLE BORING LOCATIONS ERDLE PERFORATING CO., INC.

Scale: 1" - 80'



During the field work, each soil sample was characterized in terms of soil type and texture. These evaluations appear in Tables B-1 through B-4 in Appendix B..

At each location, soil samples were taken at depths of approximately one foot, three feet and five feet. (Note: At Location 4, samples were taken at the one foot and three foot depths only.) Representative portions of each of the three individual soil samples were composited for each location and transported to the laboratory for analysis. These composites were analyzed for purgeable halocarbons (601 Series) and purgeable aromatics (602 series). Also, a representative sample from each depth was archived for future analysis, if desired.

At Location 3, an individual sample was also taken at a depth of seven feet and saved for analysis. The purpose of this sample was to further define the clay layer encountered three to five feet below grade. This sample has not been analyzed and was not included in the composite for Location 3.

At each location, the bore hole extended into the saturated soil zone. Each bore hole was pumped dry. On January 9, the depth to groundwater was measured at each sampling location (see Table B-5 in Appendix B). Groundwater samples were then obtained using

a bottom-filling teflon bailer. The groundwater samples were also analyzed for purgeable halocarbons and purgeable aromatics.

After each groundwater sample was taken, the depth of the bore was measured. All four holes had collapsed substantially (see Table B-5 in Appendix B). The bores were then filled in with soil and leveled.

Cleaning methods for the sampling and compositing equipment included scrubbing to remove soil, a tap or deionized water rinse, methanol rinse, and deionized water final rinse.

In accordance with EPA and DEC protocol, the samples were stored in pre-cleaned 40-ml. glass vials with teflon septums and caps. They were preserved in the field by cooling and handled by chain-of-custody with proper documentation. The samples were transported to General Testing Corporation for analysis. General Testing has a NYS Laboratory Certification ID# 10145, and is also certified by the State of New Jersey.

The composite soil samples and the groundwater samples were analyzed in accordance with Federal Regulations: 40 CFR Part 136 - Appendix A "Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater." Samples were prepared and extraction

procedures were conducted as outlined in EPA Manual SW-846, "Test Methods for Evaluating Solid Waste." Procedures in this manual were used to analyze the organics. Specifically, Method 601 "Purgeable Halocarbons" and Method 602 "Purgeable Aromatics" were used to determine unknown concentrations using the gas chromatograph.

It should be noted that, at Locations 1 and 3, the shallow sample was taken from a first bore hole and the deeper samples from a second bore hole approximately one foot away. This was necessitated by circumstances encountered in the field, and does not have a significant impact on the results of this study.

DISCUSSION OF RESULTS:

The complete analytical report on the soil and groundwater sampling is contained in Appendix A, including the Quality Control data and chain-of-custody documentation. A discussion of the parameters of interest is presented below.

Soil Samples:

The parameters of interest are trichloroethene and 1,2-dichlorothene. Trichloroethene is the degreasing solvent used at Erdle. The presence of 1,2-dichloroethene may be a result of the breakdown of trichloroethene in the soil.

The levels of the parameters of interest found in the soil composites are displayed in Table 1. Note, due to a laboratory misunderstanding, two separate soil composites from Location 1 were analyzed, and the results for each sample are displayed.

The highest levels of each of these parameters were found in Location 3, which is approximately four to six feet from the waste trichloroethene tank (see Diagram 1). The levels are approximately 50% lower at Location 2, which is approximately 50 feet south-southeast of Location 3. The contaminant levels are even lower at Location 1, which is located near the stream, about 35 feet south-southwest of Location 3. The trichloroethene

concentration at this location was below the method detection limit of 5 ug/kg. Neither of the parameters of interest was detected in the background sample (Location 4).

A hardpan clay layer begins at a depth of approximately three to five feet below grade. Based on the one-foot soil core taken at a depth of seven feet at Location 3, this clay layer extends to a depth of at least eight feet (see Table B-3).

No purgeable aromatics were detected in any of the composite samples.

Groundwater Samples:

The parameters of interest in the groundwater samples are also trichloroethene and 1,2-dichloroethene. The results for these two parameters are shown in Table 2. Again, the highest levels were found immediately adjacent to the tank (Location 3). The levels found at Locations 2 and 3 were lower by one to two orders of magnitude. 1,2-Dichloroethene was found at higher levels than trichloroethene in all three locations behind the building.

Neither of the parameters of interest were detected at Location 4 (background). Also, no purgeable aromatics were detected in any of the groundwater samples.

TABLE 1

Soil Composite Results (ug/kg) Sampled January 6-8, 1987

Job #70034

	Bore Hole Location Number					
				3	4	
Trichloroethene	<5	<5	1200	2000	<5	
1,2-Dichloroethene	110	140	630	1400	<5	

TABLE 2

Groundwater Results (ug/l) Sampled January 9, 1987

Job #70034

	Bore Hole Location Number						
		2	3	4			
Trichloroethene	510	470	4,800	<1			
1,2-Dichloroethene	650	4010	64,600	<1			

PROXIMITY TO POPULATION AREAS, DRINKING WATER, AND SURFACE WATER

An investigation was made to determine the proximity of the tanks to population areas, drinking water, and surface water. Diagram C-1 in Appendix C shows the nearby population areas.

The Town of Gates, the Monroe County Health Department, and the Monroe County Planning Office were contacted. A 3000-foot radius around the tank was checked by the Monroe County Planning Office and it was determined that groundwater is not used as a drinking water supply within this area. In fact, the only well in the Town of Gates on record with the Monroe County Health Department is approximately three miles west-northwest of the tank.

A stream runs south along the west property boundary and some wet areas exist south of the building (see Diagram 1). The stream then discharges into Little Black Creek which discharges into the Genesee River (see Diagram C-2). These facts, plus the fact that a hardpan clay layer exists three to five feet below grade, seem to indicate that local shallow aquifer groundwater movement is generally southward toward the marsh. This appears to be the likely route of migration of any release.

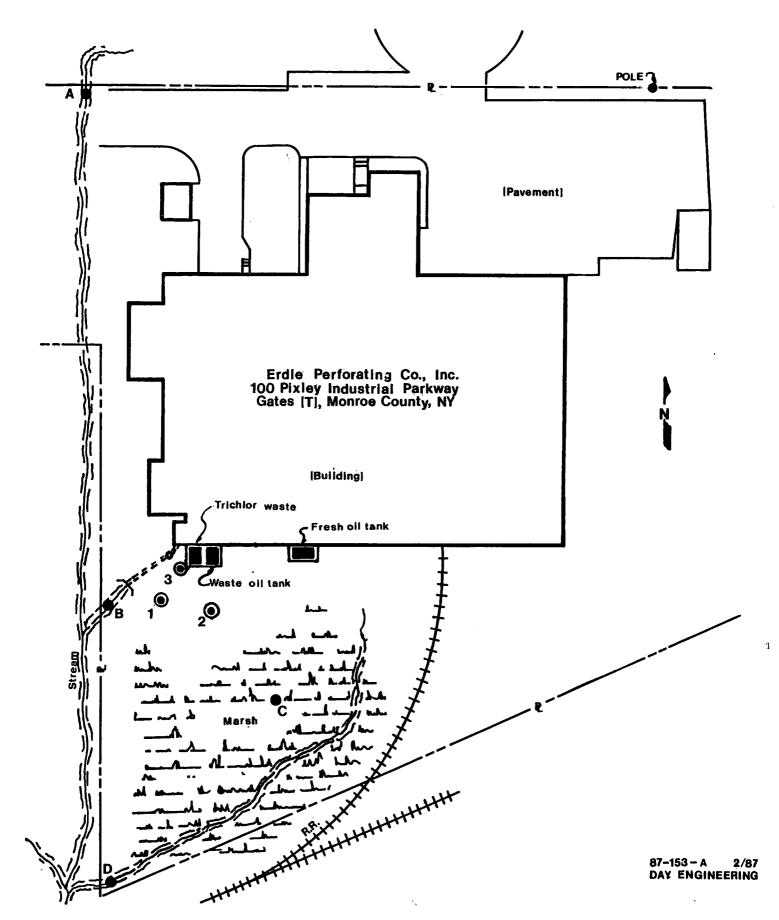
RECOMMENDATIONS:

The following initial response actions are recommended for implementation.

- 1. The waste trichloroethene tank must be removed as soon as is practicable. At the time of removal of the tank, the integrity of the clay soil zone within the pit area should be visually evaluated.
- 2. A surface water and sediment sampling program is also recommended. This sampling should be performed at each of the four locations shown in Diagram 2. The proposed sampling locations are identified as A through D. Location A will be used to provide background information on concentrations of the parameters of interest in the stream. Location B will provide information on localized contributions from the area containing the waste trichloroethene tank. Location C will provide information regarding the standing marsh water south of the building. Location D will provide information regarding the presence of these organic constituents in the stream effluent leaving the property.

PROPOSED WATER / SEDIMENT SAMPLING LOCATIONS ERDLE PERFORATING CO., INC.

Scale; 1in = 80ft.



These water and sediment samples should be analyzed using Method 601 "Purgeable Halocarbons," described earlier in this report.

3. Existing boring logs should be reviewed, if available to confirm the geology of the area. Information regarding the depth and density of the clay layer, and the depth to bedrock, is necessary in order to assess the impact of any vertical migration.

SUMMARY:

A soil and groundwater sampling program was conducted at Erdle Perforating Company, Inc. The sampling program was designed to determine if halogenated solvents were present in the soils and groundwater in the vicinity of Erdle's underground waste trichloroethene accumulation tank. The purpose of the study was to identify potential environmental exposures, and to develop a corrective action plan to reduce any risks, if warranted.

Soil composites and groundwater samples were obtained from three bore holes augered near the tanks, and from a bore hole designated as a background location. The samples were analyzed for purgeable halocarbons and purgeable aromatics. parameters of interest are trichloroethene and 1,2-dichloroethene. No purgeable aromatics were detected in any of the samples, and purgeable halocarbons were not detected in the background sample. Trichloroethene and 1,2-dichloroethene were found in the samples taken near the tanks. The highest levels were found in the soils located 4-6 feet from the waste trichloroethene tank. Much lower levels were found in the sampling locations located about 40-50 feet from the tank, indicating that the majority of the contamination is confined to the immediate vicinity of the waste trichloroethene tank.

Recommendations resulting from this study include removal of the waste trichloroethene tank; surface water and sediment sampling; and a review of existing boring logs to characterize the soil cross section and the depth to bedrock. APPENDIX A



710 Exchange Street Rochester, NY 14608 (718) 454-3760 85 Trinity Place Hackensack, NJ 07601 (201) 488-5242

February 3, 1987

Mr. Bruce Peachy Day Engineering 700 Exchange St. Rochester, NY 14608

Re: Erdle Perforating: Soil Borings, Water - GTC #70034

Dear Mr. Peachy:

Enclosed is the analytical data for the above referenced samples which were delivered to General Testing on January 9, 1987. Of the 22 samples received, 5 soil composites (including one duplicate) and 4 water samples were analyzed for Volatile Halogenated Organics and Volatile Aromatics per your request. Due to a laboratory error, soil composite 4 was re-analyzed outside of holding time limitations.

Quality control data specific to your samples is included in the second section of this report. You will find chain of custody records in the final section.

If you have any questions regarding this information, please call.

Sincerely,

Karen Bunker

Client Representative

Karen Bunker

KB/bms

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enc:

GTC Report #70034

REPORT INDEX

Section A: Analytical Data

Section B: Quality Control Data

Section C: Documentation

GTC Report #70034

SECTION A

ANALYTICAL DATA

Presented in this section is analytical data for the parameters requested. The following references concerning units and analytical methodology apply to the data provided herein.

Units: ug/l(x), mg/l(), ug/g(), ug/kg(x), wet weight(x), dry weight()

Analytical Methodology Obtained From:

- () Federal Register, 40 CFR Part 136, Guidelines Establishing Test Procedures for the analysis of Pollutants under the Clean Water Act, 10/26/84.
- (x) SW-846, Test Methods for Evaluating Solid Waste, 2nd Edition, 7/82.
- () Other:

general testing corporation

710 Exchange Street Rochester, NY 14808 (716) 454-3760

85 Trinity Place okensack, NJ 07801 (201) 488-5242

LABORATORY REPORT

70034 Job No.

2/3/87 Date

Client

Bruce Peachy Day Engineering 700 Exchange St. Rochester, NY 14608 Sample(s) Reference

Erdle Perforating

Priority Pollutant Data 29 Purgeable Halocarbons (Volatile Organic Halogens)

Date Samples ($_{\rm X}$) received () collected by General Testing 1/9/87

P.O. #		ANALYTICA	L RESULTS,	ug/kg
Sample Description	A	В	С	D
Analysis * by GC Method 601	1 - Soil	1 - Soil	2 - Soil	3 - Soil
(in order of elution)	Composite	Composite	Composite	Composite
Date(s) Collected	1/6/87	1/6/87	1/7/87	1/7/87
Time(s) Collected	15:15	15:15	11:15	14:30
Date Analyzed	L/20/87	1/20/87	1/20/87	Section and a section of the control
Chloromethane	⟨25	<25	<25	₹25
Bromomethane	(25	(25	(25)	K25
Dichlorodifluoromethane	⟨25	<25	<25	<25
Vinyl Chloride (=)	(25	(2 5	(25	<25
Chloroethane	₹25 ₹ 5	⟨25	50	74
Methylene Chloride	<5	√5 √5	45	45
Trichlorofluoromethane 1,1-Dichloroethene	1 (5	() (5	₹ 5	<5 <5
1.1-Dichloroethane	√ ⟨5	< 5	< 5	45
1,1-Dictiloroethane 1,2-Dichloroethene	110	140	630	1400
Chloroform	\ 5	₹5	< 5	<5
1,2-Dichloroethane	čš	25	25	65
1,1,1-Trichloroethane	<5	< 5	< 5	28
Carbon Tetrachloride	Ì.	7 5	. (5	ŽŠ
Bromodichloromethane	<5	⟨5	〈 5	〈 5
1,2-Dichloropropane	<5 ₹5	: (5.	(5)	(5
1,3-Dichloropropene (Trans)	<5	\ 5	ζ5	<5
Trichloroethene	(5		1200	2000
1,3-Dichloropropene (Cis) =	₹ <10	<10	<10	₹10
Dibromochloromethane :	, C10	. K10	<10	K10
1,1,2-Trichloroethane	∠√10	<10	<10	<10
2-Chloroethylvinyl Ether Bromoform	<10	<10	<10	<10
1.1,2,2 Tetrachtorcethene	₹10	\< <u>1</u> 0	₹10	₹10
Tetrachloroethene	(5	(5	4.5	5/
Chiordbenzene	(5 (10	ζ5 Κ 10	14	56 (10
1,3-Dichlorobenzene (m)	⟨10	<10	<10	<10
1,2-Dichioropenzene (o)	(10	810	(10 (10	(10
1,4-Dichlorobenzene (p)	<10	<10	<10	<10
(4)	, /IO	·).

*EPA 40 CFR Part 136 10/84

Analytical procedures in accordance with Standard Methods for the Examination of Water and Wastewater, 15th Edition and Methods for Chemical Analysis of Water and Wastes, EPA (<) indicates lowest detectable concentration with procedure used. Data on quality control performed with above sample(s) is available upon request.

NY LABORATORY CERTIFICATION ID #: 10145 NJ ID #: 73331 in Rochester; ID #: 02317 in Hackensack Morskell Shan **Laboratory Director**

Ass't

general testing corporation

710 Exchange Street Rochester, NY 14608 (718) 454-3760 85 Trinity Place Hackensack, NJ 07601 (201) 488-5242

LABORATORY REPORT

Client Bruce Peachy
Day Engineering
700 Exchange St.
Rochester, NY 14608

Job No.	70034	D	ate	2/3/87
000 110.			alo .	

Sample(s) Reference
Priority Pollutant Data
7 Purgeable Aromatics

Erdle Perforating

Date Samples (x) received () collected by General Testing 1/9/87

P.O. #		ANALYTICA	AL RESULTS,	ug/kg
Sample Description Analysis * by GC Method 602 Date(s) Collected Time(s) Collected Date Analyzed	A 1 - Soil Composite 1/6/87 15:15 1/20/87	B 1 - Soil Composite 1/6/87 15:15 1/20/87	C 2 - Soil Composite 1/7/87 11:15 1/20/87	D 3 - Soil Composite 1/7/87 14:30 1/20/87
Benzene	< 5	<5 .	< 5	< 5
Toluene La Rechard de la Company de la Compa	< 5	< 5	<5	< 5
Ethylbenzene	₹5	< 5	<5	< 5
Chlorobenzene	<10	<10	<10	<10
1,4-Dichlorobenzene	<10	<10	<10	<10
1,3-Dichlorobenzene	<10	<10	<10	<10
1,2-Dichlorobenzene	<10	<10	<10	<10
Additional Compounds eluting but not on 602 list				
p-Xylene	< 5	⟨ 5	√ √5	< 5
m-Xylene	< 5	< 5	< 5	<5
o-Xylene	< 5	< 5	< 5	< 5

Analytical procedures in accordance with Standard Methods for the Examination of Water and Wastewater, 15th Edition and Methods for Chemical Analysis of Water and Wastes, EPA (<) indicates lowest detectable concentration with procedure used. Data on quality control performed with above sample(s) is available upon request.

NY LABORATORY CERTIFICATION ID #: 10145 NJ ID #: 73331 in Rochester, ID #: 02317 in Hackensack Morskell Sterra

Laboratory Director

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^{*}EPA 40 CFR Part 136 10/84

general testing corporation

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85 Trinity Place Hackenseck, NJ 07801 (201) 488-5242

LABORATORY REPORT

_ Date

2/3/87

Client

Bruce Peachy
Day Engineering
700 Exchange St.
Rochester, NY 14608

Sample(s) Reference

Erdle Perforating

Surrogate Standard Recoveries For EPA Method 601/602

Date Samples ($_{\rm X}$) received () collected by General Testing 1/9/87

P.O. #			L RESULTS ated otherwise)	
Sample Description	A . 1 - Soil Composite	Composite	C 2 - Soil Composite	D 3 - Soil Composite
Date(s) Time(s)	g	1/6/87 15:15	1/7/87 11:15	1/7/87 14:30
% RECOVERY:				
Bromochloromethane 2-Bromo-1-chloropropane	93%	78%	103%	90%
	89%	90%	100%	81%
a,a,a -trifluorotoluene	117%	97%	107%	93%
*EPA 40 CFR Part 136 10/84 Analytical procedures in accordance with Standard Methods for the Examination of Water and Wastewater, 15th Edition and Methods for Chemical Analysis of Water and Wastea, EPA (<) indicates lowest detectable concentration with procedure used. Data on quality control performed with above sample(s) is available upon request. NY LABORATORY CERTIFICATION ID #: 10145	· 	Moreke	Labor Ass't	atory Director

NY LABORATORY CERTIFICATION ID #: 10145 NJ ID #: 73331 in Rochester, ID #: 02317 in Hackensack.

general testing corporation

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LABORATORY REPORT

Job No. 70034

e 2/3/87

Client

Bruce Peachy
Day Engineering
700 Exchange St.
Rochester, NY 14608

Sample(s) Reference

Erdle Perforating

Priority Pollutant Data
29 Purgeable Halocarbons
(Voiatile Organic Halocers)

Date Samples ($_{\rm X}$) received () collected by General Testing 1/9/87

ANALYTICAL RESULTS

P.O. #		ANALYTICA	L RESULTS,	ug/kg
Sample Description	Е			******************
Analysis * by GC Method 601	4 - Soil			
	Composite			
Date(s) Collected	1/8/87			
Time(s) Collected	10:00			50 (City) (Alexandra and Alexandra and Alex
Date Analyzed	1/28/87			
Chloromethane	⟨25			
Bromomethade	(25			
Dichlorodifluoromethane	〈25 〈2 5			
Vinyl Chloride				
Chloroethane	<25 ₹5	3		
Methylene Chloride Trichlorofluoromethane	< 5			
1,1-Dichioroethene	25			
1,1-Dichloroethane	<5			0.000 A.C. 28.00 A.C. 20.00 A.C. 20.00
1,2-Dichloroethane				
Chloroform	⟨5			
1,2-Dichloroethane	175			
1,1,1-Trichloroethane	< 5			
Carbon Tetrachloride	45			
Bromodichloromethane	<u> </u>		***********	
1,2-Dichloropropane				
1,3-Dichloropropene (Trans)	₹5			
Trighlaroetherie	45			
1,3-Dichloropropene (Cis)	<10			
Dibramochloromethane	K10			
1,1,2-Trichloroethane 2-Chieroethylvinyl Ether	<10 ¹			
Bromoform	(10			
1,1,2,2 Tetrachioroethene	⟨10 			
Tetrachloroethene	ζ5		9.900.00 0.000.000.000000000000000000	***************************************
Chlorobenzene	- 2 10			
1,3-Dichlorobenzene (m)	₹10			
1,2-Dichlorobenzene (o)	×10			and the second
1,4-Dichlorobenzene (p)	λ10 λ10		***************************************	

*EPA 40 CFR Part 136 10/84

Analytical procedures in accordance with Standard Methods for the Examination of Water and Wastewater, 15th Edition and Methods for Chemical Analysis of Water and Wastea, EPA (<) indicates lowest detectable concentration with procedure used. Data on quality control performed with above sample(s) is available upon request.

NY LABORATORY CERTIFICATION ID #: 10145 NJ ID #: 73331 in Rochester; ID #: 02317 in Hackensack. Morskell Slean

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LABORATORY REPORT

70034 2/3/87 Job No. Date

Client

Bruce Peachy Day Engineering 700 Exchange St. Rochester, NY 14608 Sample(s) Reference **Priority Pollutant Data** 7 Purgeable Aromatics Erdle Perforating

Date Samples (_,) received (_) collected by General Testing

.O. #	7			ANALYTICAL	RESULTS,	ug/kg
Sample Description Analysis * by GC Metho	od 602	*\$ * \$*********************************	E 4 - Soil Composite	• • • • • • • • • • • • • • • • • • • •	* * *	
Date(s) Collected Time(s) Collected Date Analyzed	en e	Ter x er in the	1/8/87 10:00 1/28/87	e gregoria. Estado	to graduate in the second	
Benzene 🚳	e Temporari	a Section of the sect	<5	The second secon	e - 1	٠.,,;
Toluene	and the state of t	To Page 18 Or 1	< 5	The state of the s	1.0	
Ethylbenzene		9 9 . 1	< 5	en e		
Chlorobenzene	A STATE OF THE STA	to the state of th	<10	e January Marie Carlos		n. d. Su
1,4-Dichlorobenzene	.	- •	<10	v .	a - * *	
1,3-Dichlorobenzene		• •	<10			
1,2-Dichlorobenzene			<10		SATE SE	
Additional Compoun not on 602 list	ids eluting but		· 克塞, 5 ·			
			a karyana Manazaran			
p-Xylene			< 5			
m-Xylene		- 19 - 19 (2) - 12 (2) (2) (2) (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	<5	e The second of the second of		
o-Xylene	*** ** ** ** ** ** ** ** ** ** ** ** **	18 18 18 18 18 18 18 18 18 18 18 18 18 1	5.		A A Company of the Co	
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Analytical procedures in accordance with Standard Methods for the Examination of Water and Wastewater, 15th Edition and Methods for Chemical Analysis of Water and Wastes, EPA (<) Indicates lowest detectable concentration with procedure used. Data on quality control performed with above sample(s) is available upon request.

NY LABORATORY CERTIFICATION ID #: 10146 NJ ID #: 73331 in Rochester, ID #: 02317 in Hackensack Marshall Shanns

Laboratory Director

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general testing corporation

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LABORATORY REPORT

Client

Bruce Peachy
Day Engineering
700 Exchange St.
Rochester, NY 14608

lah Na	70034	Data	2/3/87	
Job No.		Date		-

Sample(s) Reference

Erdle Perforating

Surrogate Standard Recoveries For EPA Method 601/602

Date Samples (X) received () collected by General Testing 1/9/87

P.O. #		AL RESULTS ated otherwise)	
Sample Description	E 4 - Soil Composite		
Dale(s) Time(s)	1/8/87 10:00		
Company of the second s			
% RECOVERY:			
Bromochloromethane	126%		
2-Bromo-1-chloropropane	119%		
a,a,a -trifluorotoluene	91%	**	
·			
*EPA 40 CFR Part 136 10/84 Analytical procedures in accordance with Standard Methods for			

Analytical procedures in accordance with Standard Methods for the Examination of Water and Wastewater, 15th Edition and Methods for Chemical Analysis of Water and Wastes, EPA (<) indicates lowest detectable concentration with procedure used. Data on quality control performed with above sample(s) is available upon request.

NY LABORATORY CERTIFICATION ID #: 10145 NJ ID #: 73331 in Rochester, ID #: 02317 in Hackensack Marskell Many Director

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general testing corporation

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LABORATORY REPORT

Date

2/3/87

Client

Bruce Peachy
Day Engineering
700 Exchange St.
Rochester, NY 14608

Sample(s) Reference

Erdle Perforating

Priority Pollutant Data 29 Purgeable Halocarbons (Volatile Organic Halogens)

Date Samples (x) received () collected by General Testing 1/9/87

P.O. #		ANALYTICA	L RESULTS,	ug/1
Sample Description	F	G	Н	I
Analysis * by GC Method 601	4 - Water	2 - Water	1 - Water	3 - Water
(in order of elution)				WT. Co. W. C. Co. Land Co. Standards
Date(s) Collected	1/9/87	1/9/87	1/9/87	1/9/87
Time(s) Collected	08:30	09:15	09:45	10:00
Date Analyzed	1/20/87 <5	1/20/87 <50	1/21/87 <50	1/20/87 <50
Chloromethane Bromomethane	45	K50	(50	, < 50 < 50
Dichlorodifluoromethane	< 5	<50	<50	<50
Vinyi Chleride	(5	(50	(50	₹50
Chloroethane	< 5	<50	<50	460
Methylene Chloride	,	(10	K10	57
Trichlorofluoromethane	\ \1	<10	<10	<10
1,1-Dichloroethene	Q.	C10		₹10
1,1-Dichloroethane 1,2-Dichloroethane	<1 ✓1	<10 4010	<10 650	57 64,600
Chloroform	⟨1	<10	⟨10	<10
1,2-Dichloroethane	À	310	K 10	(10
1,1,1-Trichloroethane	⟨1	⟨10	<10	⟨10
Carbon Tetrachioride	, A	<10	K1 0.	K10
Bromodichloromethane	ر2	₹10	<10	<10
1,2-Dichloropropane	(1	<10	× (10	<10
1,3-Dichloropropene (Trans)	41	₹10	₹10	<10
Trichioroethene 1,3-Dichloropropene (Cis)	(1)	470 <20	510 420	4800 <20
Dibromochiaromethane	<2 22	×20	20	(20
1,1,2-Trichloroethane	ζ2	⟨20	<20	<20
2-Chloroethylvinyl Ether	<2	₹20	(20	<20
Bromoform	۷2	⟨20	<20	₹20
1,1,2,2.Tetrachioroethane	11. C	(10	<10	<10
Tetrachloroethene	41	ζ10	<1 0	62
Chiorobenzene 1,3-Dichlorobenzene (m)	(2)	420	(20	(20
1,3-Dichiorobenzene (m)	(2 (2	<20 <20	∠20 <20 **	∠20 - 20
1,4-Dichlorobenzene (p)	⟨2	₹20	⟨20	₹20
	` \ <u>\</u>	7411	<u> </u>	144

*EPA 40 CFR Part 136 10/84

Analytical procedures in accordance with Standard Methods for the Examination of Water and Wastewater, 15th Edition and Methods for Chemical Analysis of Water and Wastes, EPA (<) indicates lowest detectable concentration with procedure used. Data on quality control performed with above sample(s) is available upon request.

NY LABORATORY CERTIFICATION ID #: 10145 NJ ID #: 73331 in Rochester, ID #: 02317 in Hackensack. Ass'iLaboratory Director

Morekell Stan

general testing corporation

710 Exchange Street Rochester, NY 14608 (716) 454-3760 85 Trinity Place Hackensack, NJ 07601 (201) 488-5242

LABORATORY REPORT

Job No. _______ Date _____2/3/87

Client

Bruce Peachy
Day Engineering
700 Exchange St.
Rochester, NY 14608

Sample(s) Reference

Erdle Perforating

Priority Pollutant Data 7 Purgeable Aromatics

Date Samples (** received () collected by General Testing 1/9/87

P.O. #			ANALYTICAL RESULTS,					
Sample Description Analysis * by GC Method 602		F 4 - Water	G 2 - Water	H 1 - Water	I 3 - Water			
Date(s) Collected Time(s) Collected Date Analyzed	e najveka s	1/9/87 08:30 1/20/87	1/9/87 09:15 1/20/87	1/9/87 09:45 1/21/87	1/9/87 10:00 1/20/87			
Benzene	Age to	<1	₹10	<10	<10			
Toluene - Askas in the manifest		<1	<10	<10	<10			
Ethylbenzene (Control of the Control		<1	<10	<10	<10			
Chlorobenzene		<2	<20	<20	<20			
1,4-Dichlorobenzene	. •	<2	<20	<20	<20			
1,3-Dichlorobenzene		<2	<20	⟨20	<20			
1,2-Dichlorobenzene		<2	<20	<20	<20			
Additional Compounds eluting but not on 602 list	,							
	*			.				
p-Xylene		<1	<10	<10	<10			
m-Xylene		<1	<10	<10	⟨10			
o-Xylene		<1	<10	<10	<10			
in the state of th		رواد معمد المحمد ا		*				

^{*}EPA 40 CFR Part 136 10/84

Analytical procedures in accordance with Standard Methods for the Examination of Water and Wastewater, 15th Edition and Methods for Chemical Analysis of Water and Wastes, EPA (<) indicates lowest detectable concentration with procedure used. Data on quality control performed with above sample(s) is available upon request.

NY LABORATORY CERTIFICATION ID #: 10145 NJ ID #: 73331 in Rochester; ID #: 02317 in Hackensack Marshall Shanno

Laboratory Director

Aus

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general testing corporation

710 Exchange Street Rochester, NY 14808 (716) 454-3760

85 Trinity Place Hackensack, NJ 07601 (201) 488-5242

LABORATORY REPORT

70034 2/3/87 Job No. Date

Client Bruce Peachy Day Engineering

700 Exchange St. Rochester, NY 14608 Sample(s) Reference

Erdle Perforating

Surrogate Standard Recoveries For EPA Method 601/602

Date Samples (x) received () collected by General Testing 1/9/87

P.O. #	ANALYTICAL RESULTS (mg/l unless stated otherwise)					
Sample Description	F 4 - Water	G 2 - Water	H 1 - Water	I 3 - Water		
Date(s) Time(s)	1/9/87 08:30	1/9/87 09:15	1/9/87 09:45	1/9/87 10:00		
% RECOVERY:						
Bromochloromethane	81%	87%	84%	114%		
2-Bromo-1-chloropropane	89%	93%	95%	102%		
a,a,a -trifluorotoluene	91%	93%	102%	92%		
*EPA 40 CFR Part 136 10/84 Analytical procedures in accordance with Standard Methods for the Examination of Water and Wastewater, 15th Edition and Methods for Chemical Analysis of Water and Wastes, EPA (<) indicates lowest detectable concentration with procedure used. Data on quality		Marche	l Slan	,		
control performed with above sample(s) is available upon request. NY LABORATORY CERTIFICATION ID #: 10145 NJ ID #: 73331 in Rochester; ID #: 02317 in Hackensack.	· .		Ass Labor	atory Director		

SECTION B

QUALITY CONTROL DATA

Presented in this section is Quality Control associated with the data provided in Section \underline{A} of this report.

Quality Control Explanations:

- 1.) Run Quality Control Selected QC data from the analytical run in which your sample(s) were involved.
- 2.) Job Specific Quality Control QC data specific to your set of samples.
- 3.) Duplicates Replicate analyses of a given sample used to monitor precision.
- 4.) Matrix Spikes Addition of a known amount of analyte to a sample. Recovery is calculated by subtracting original value attributable to the sample from the combined value. The difference is then divided by the amount added to calculate % recovery. Poor recoveries may indicate analytical interference due to the matrix of the sample. Any other samples of this same matrix may also have been effected, high or low as indicated by the % recovery.

- 5.) Blanks Laboratory Deionized water used to monitor for contamination during analysis.
- 6.) Blank Spikes Same as item #4 but analyte is added to laboratory deionized water. This indicates the accuracy of analysis.
- 7.) EPA Check Samples Samples from an outside source having a known concentration of analyte. Used as a measure of analytical accuracy.

When possible, all components of the above listed QC protocol are performed during an analytical run. The resulting data is compared to historical records when evaluating the quality of analytical runs. The data provided in your report has passed our Quality Assurance review.

Quality Control Notes:

general testing corporation

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85 Trinity Place Hackeneack, NJ 07601 (201) 488-5242

LABORATORY REPORT

Job No.

70034

Date

2/3/87

Client

Bruce Peachy
Day Engineering
700 Exchange St.
Rochester, NY 14608

Sample(s) Reference

Erdle Perforating

Priority Pollutant Data

29 Purgeable Halocarbons (Volatile Organic Halogens)

QC Data

Date Samples ($_{\rm X}$) received () collected by General Testing $_{1/9/87}$

ANALYTICAL RESULTS. ug/1P.O. # Sample Description Lab Analysis * by GC Method 601 **Blank** (in order of elution) Date(s) Collected Time(s) Collected Date Analyzed Chloromethane Bromomethane Dichlorodifluoromethane Vinyi Chloride Chloroethane Methylene Chloride Trichlorofluoromethane 1.1-Dichloroethene 1.1-Dichloroethane 1,2-Dichloroethene Chloroform 1,2-Dichloroethane 1.1.1-Trichloroethane Carbon Tetrachioride Bromodichloromethane 1,2-Dichloropropane 1,3-Dichloropropene (Trans) Trichigraethene 1,3-Dichloropropene (Cis) Dibromochioromethane 1.1.2-Trichloroethane 2-Chloroethylylnyl Ether **Bromoform** 1.1,2,2-Tetrachioroethana Tetrachloroethene Chiorobenzene 1,3-Dichlorobenzene (m) 1.2-Dichloropenzene (c) 1.4-Dichlorobenzene (p)

*EPA 40 CFR Part 136 10/84

Analytical procedures in accordance with Standard Methods for the Examination of Water and Wastewater, 15th Edition and Methods for Chemical Analysis of Water and Wastes, EPA (<) Indicates lowest detectable concentration with procedure used. Data on quality control performed with above sample(s) is available upon request.

NY LABORATORY CERTIFICATION ID #: 10145 NJ ID #: 73331 in Rochester, ID #: 02317 in Hackensack. Marshell Shanno

Ass Laborator

Laboratory Director

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general testing corporation

710 Exchange Street Rochester, NY 14608 (716) 454-3760 85 Trinity Place Hackensack, NJ 07601 (201) 488-5242

LABORATORY REPORT

Job No. 70034

Date 2/3/87

Client

Bruce Peachy
Day Engineering
700 Exchange St.
Rochester, NY 14608

Sample(s) Reference

Erdle Perforating

Priority Pollutant Data
7 Purgeable Aromatics

QC Data

ROCHESCEL, NI 14000

Date Samples () received () collected by General Testing

1/9/87

P,O, #			ANALY	TICAL	RESULTS,	ug/l (pj	ob)
Sample Description Analysis * by GC Method 602	* 	Lab Blank	1	** ***	•		
Date(s) Collected Time(s) Collected Date Analyzed	gangan sanah	1/20/87		The state of the s	a sa		1. * 1. * 1. * 1. * 1. *
Benzene	e de la companya de l	< 1					v.
Bio Toluene - 1 Figure 1880		1 <1		e digade in i	ją tyka se		*.
Ethylbenzene	· · · · · · · · · · · · · · · · · · ·	<1					
Chlorobenzene	Control of the second of the s	₹2	protection of	taa ee ee	المريادة	· • • • •	· .
1,4-Dichlorobenzene		<2					
1,3-Dichlorobenzene		<2			e e e	*, * *	
1,2-Dichlorobenzene		<2				·.	
Additional Compounds eluting I not on 602 list	but Add Add Add Add			4 (* 8) 1 (* 8)	never ha	.*	
p-Xylene	· • •	<1	n tyrne e			· · · · · · · · · · · · · · · · · · ·	
m-Xylene o-Xylene	ting of the second	<1 <1		r gray			
					entre de la companya	• • • • • • • • • • • • • • • • • • •	::::
	E Commence of the Commence of				* .		

* EPA 40 CFR Part 136 10/84

Analytical procedures in accordance with Standard Methods for the Examination of Water and Wastewater, 15th Edition and Methods for Chemical Analysis of Water and Wastes, EPA (<) indicates lowest detectable concentration with procedure used. Data on quality-control performed with above sample(s) is available upon request.

NY LABORATORY CERTIFICATION ID #: 10145
NJ ID #: 73331 in Rochester, ID #: 02317 in Hackensack.

Marshall Shanno

Laboratory Director

Ass i

general testing corporation

710 Exchange Street Rochester, NY 14608 (716) 454-3780

(201) 488-5242

LABORATORY REPORT

70034 2/3/87 Job No. Date

Client

Bruce Peachy Day Engineering 700 Exchange St. Rochester, NY 14608 Sample(s) Reference

Erdle Perforating

Priority Pollutant Data

29 Purgeable Halocarbons (Volatile Organic Halogens) QC Data

Date Samples (x) received () collected by General Testing 1/9/87

P.O. #		ANALYTICA	L RESULTS,	ug/kg
Sample Description	C (Dun)	Coilead	Å	
* .	C (Dup.) 2 - Soil	Amount	Recovery	
Analysis * by GC Method 601 (in order of elution)	Composite	Added	& Recovery	
Date(s) Collected	1/7/87	Audeu	Recovery	
Time(s) Collected	11:15			
Date Analyzed	1/20/87			
Chloromethane	<25			
Bromomethane	(25			
Dichlorodifluoromethane	⟨25			
Vinyl Chloride	<25			*
Chloroethane	24 ∢5			
Methylene Chloride		32.3	1217	
Trichlorofluoromethane	√ 5			
1,14Dichloroethene	< < 5			
1,1-Dichloroethane	₹5	54.0	73%	
1,2-Dichloroethene Chloroform	500			
1,2-Dichloroethane	45			
1,1,1-Trichloroethane	45 45	40.0	99%	
Carbon Tetrachioride	(5	40.9	1218	
Bromodichloromethane	ζ5			
1,2-Dichloropropane				
1,3-Dichloropropene (Trans)	ζ5			
Trichloroethene	1100			
1,3-Dichloropropene (Cis)	₹10			
Dibramochloromethane	~~410 ···			
1,1,2-Trichloroethane	₹10			
2-Chloroethylvinyl Ether Bromoform	(10	•		
1,1,2,2-Tetrachioroethana	₹10			
Tetrachloroethene	·····(5	47.7	101%	
Chlorobenzane	8.3 <10	47.7	101%	
1,3-Dichlorobenzene (m)	ζ10 ζ10			
1,2-Dichtgrobenzene (ö)	(10			
1,4-Dichlorobenzene (p)	ζ10 ζ10	-		
	NAM:	3.0		()

*EPA 40 CFR Part 138 10/84

Analytical procedures in accordance with Standard Methods for the Examination of Water and Wastewater, 15th Edition and Methods for Chemical Analysis of Water and Wastes, EPA (<) indicates lowest detectable concentration with procedure used. Data on quality control performed with above sample(s) is available upon request.

NY LABORATORY CERTIFICATION ID #: 10145 NJ ID #: 73331 in Rochester, ID #: 02317 in Hackensack Marchell St **Laboratory Director**

general testing corporation

710 Exchange Street Rochester, NY 14808 (716) 454-3760

85 Trinity Place Hackensack, NJ 07601 (201) 488-5242

LABORATORY REPORT

Job No. 70034 Date 2/3/87

Client

2-8

1/84

Bruce Peachy
Day Engineering
700 Exchange St.
Rochester, NY 14608

Sample(s) Reference

Erdle Perforating

Priority Pollutant Data 7 Purgeable Aromatics

QC Data

Date Samples () received () collected by General Testing

1/9/87

P.O. #			ANALYTICAL RESULTS,	ug/kg
Sample Description Analysis * by GC Method 60	2	C (Dup.) 2 - Soil Composite	Spiked Recovery Amount % Added Recovery	en e e e e e e e e e e e e e e e e e e
Date(s) Collected Time(s) Collected Date Analyzed		1/7/87 11:15 1/20/87		
Benzene when	Karaman Araban Sanah	₹ 5	48.5	îs şx
Toluene · ·	n an	ζ5	46.0 94%	1,50
Ethylbenzene		<5	46.4 97%	
Chlorobenzene	, compared to the second of th	(10		
1,4-Dichlorobenzene		<10	territoria de la companya del companya de la companya del companya de la companya	
1,3-Dichlorobenzene		₹10		
1,2-Dichlorobenzene		<10		a
Additional Compounds e not on 602 list	luting but Nageria			
en de Maria de Carlos de C	.*			•
p-Xylene		< 5		· · · · · · · · · · · · · · · · · · ·
m-Xylene		< 5	46.0 105%	
o-Xylene		<5	98.1 88%	<u>.</u>

* EPA 40 CFR Part 136 10/84

Analytical procedures in accordance with Standard Methods for the Examination of Water and Wastewater, 15th Edition and Methods for Chemical Analysis of Water and Wastes, EPA (<) Indicates lowest detectable concentration with procedure used. Data on quality control performed with above sample(s) is available upon request.

NY LABORATORY CERTIFICATION ID #: 10145

NY LABORATORY CERTIFICATION ID #: 10145 NJ ID #: 73331 in Rochester, ID #: 02317 in Hackensack Musclell Stanson Director

Am't

general testing corporation

710 Exchange Street Rochester, NY 14608 (718) 454-3780

85 Trinity Place Hackensack, NJ 07601 (201) 488-5242

LABORATORY REPORT

70034 2/3/87 Job No. **Date**

Client

Bruce Peachy Day Engineering 700 Exchange St. Rochester, NY 14608 Sample(s) Reference

Erdle Perforating

Surrogate Standard Recoveries

For EPA Method 601/602

QC Data

Date Samples ($_{\rm X}$) received () collected by General Testing $_{1/9/87}$

P.O. #		ANALYTICA (mg/l unless st		
Sample Description	Lab Blank	C (Dup) 2 - Soil Composite		
Date(s) Time(s)	-	1/7/87 11:15		
-				
% RECOVERY:				
Bromochloromethane	100%	102%		
2-Bromo-1-chloropropane a,a,a -trifluorotoluene	106% 109%	100% 98%		
*EPA 40 CFR Part 138 10/84		1		
Analytical procedures in accordance with Standard Methods for the Examination of Water and Wastewater, 15th Edition and Methods for Chemical Analysis of Water and Wastea, EPA (<) indicates lowest detectable concentration with procedure used. Data on quality		Morde	1 Shan	,

control performed with above sample(s) is available upon request.

NY LABORATORY CERTIFICATION ID #: 10145 NJ ID #: 73331 In Rochester, ID #: 02317 in Hackensack **Laboratory Director**

general testing corporation

710 Exchange Street Rochester, NY 14608 (716) 454-3780 85 Trinity Place Hackeneack, NJ 07801 (201) 488-5242

LABORATORY REPORT

Job No. 70034 Date 2/3/87

Client

Bruce Peachy Day Engineering 700 Exchange St. Rochester, NY 14608 Sample(s) Reference

Erdle Perforating

Priority Pollutant Data 29 Purgeable Halocarbons (Volatile Organic Halogens)

Date Samples ($_{\rm X}$) received () collected by General Testing 1/9/87

P.O. #		ANALYTICA	AL RESULTS,	ug/l (ppb)
Sample Description	EPA Ch	eck		
Analysis * by GC Method 601	True	%		
(in order of elution)	Value	Recovery		
Date(s) Collected Time(s) Collected				
Date Analyzed				
Chloromethane				
Bromomethane				
Dichlorodifluoromethane Vinyl Chloride				
Chloroethane				
Methylene Chloride				
Trichlorofluoromethane				
1,1-Dichloroethene 1,1-Dichloroethane				
1,2-Dichloroethene				
Chloroform	43.0	67%		
1,2-Dichloroethane	22.2	95% 72%		****
1,1,1-Trichloroethane Carbon Tetrachloride	14.3	73% Big		
Bromodichloromethane				
1,2-Dichloropropane				
1,3-Dichloropropene (Trans) Trichloroethene				
1,3-Dichloropropene (Cis)				
Dibromochloromethane				
1,1,2-Trichloroethane 2-Chloroethylviny/ Ether				
Bromoform				
1.1,2,2-Tetrachioroethana	ALC:			
Tetrachloroethene	6.2	94%		
Chlorobenzene 1,3-Dichlorobenzene (m)				
1,2-Dichlorobenzene (iii)				
1,4-Dichlorobenzene (p)				
	+			
* EPA 40 CFR Part 136 10/84 Analytical procedures in accordance with Standard Methods for				
the Examination of Water and Wastewater, 15th Edition and Methods		* Y / /	1 1/ 1/	/

Analytical procedures in accordance with Standard Methods for the Examination of Water and Wastewater, 15th Edition and Methods for Chemical Analysis of Water and Wastes, EPA (<) indicates lowest detectable concentration with procedure used. Data on quality control performed with above sample(s) is available upon request.

NY LABORATORY CERTIFICATION ID #: 10145

NJ ID #: 73331 in Rochester, ID #: 02317 in Hackensack.

Marshall Slammo

Laboratory Director

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1-14

GTC Report #70034

SECTION C

DOCUMENTATION

Presented in this section is all support documentation requested.

Documentation Provided:

- (X) Chain of Custody Forms
- () Analytical Request Forms
- () Shipping Receipts
- () Laboratory Receipt Log
- () Other:

GENERAL TESTING CORPORATION/CHAIN-OF-CUSTODY RECORD

	710 Exchange Rochester, NY	e Street 85 Trinity 14608 Hackensa		7601						フ <u>ク</u> のろ No	
	Sample Origina Collection	tion & Shipping Inform n Site Tay CV (ation	al b	ring	3 (rdle	Perfor	alin	3	
	Collector	Street BRUCE Peacher Print	y	City			State	Bruce	Per gnature	roley	
	Bottles P Bottles S	repared by _ST	Qien)		R	ec'd by _ eal/Ship	oing #				
	Sample(s) Relin	quished by: Bruce & Peo	-10.2		Rec	eived by:				ate/Time	п
	for	Day Engineering	ency.			or .				#: 154	an a
	2. Sign				2. S					1 1	1''
	for				fc					:]
	3. Sign			·	3. S					/ /	4
	for			(A 4 D		or			()) /	: 81_@_	_
•	Client I.D.#	ived in Laboratory by		Γ	Analyte o	r	Sam	nple Prep	T 6.	ottle Set(s)	
	Lab#	Date/Time	*	Analyte (see be	Group(s) I low for ad	Required ditional)	Y N	ed Filtered		ee below)	
1	<u>A</u>	IA	S	60	1,60=	ર	سا ادد	<u> </u>	<u> </u>	1	
•		1 16187110	I,M								
2	B	1C	s_	اما	المال	<u> </u>		<u></u>		10	
		16 81 3p.	m.		. <u>.</u>						
3	C	18		_loD	0عا بر ا	4		V		1	
_		116 187 200	m ·								
4	AIN	1-Composit	te S	101	ما باد	04		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		11	
	*	116 87 3:2	Spre								
_	EBUG	1-Composite	5	6	01.6	62		-	<u> </u>		
5		116 187 3:15	p.a.		•		4				
	Use Bottle No. f	or indicating type bottl	les used i	n each b	ottle set a	and fill in	box with	# of bottles	used fo	r each typ	e.
	Bottle No.	1 2	3	4	5	6	7	8	9	10	11
	Bottle Type	40 ml Pint Vial Glass	Qt. Glass	4 oz. Plastic	8 oz. Plastic	16 oz. Plastic	Qt. Pl.	Gal. Pl.	Steril. Pl.	40ml. Vial	40 m
	# of each	<u> 2 </u>				<u> </u>				3	
	Additional Analy	tes Angla	•	Die	<u>E.</u>	Ho	LD_	A- (1		
	Shaded area f	or Lab use only; botto	m copy fo	r client; r	naximum	of 5 sam	ples per	page.	41 \ 1 \ 1		

* Source Codes: Monitoring Well (W), Soil (S), Treatment Plant (T), Drinking Water (D), Leachate (L), Hazardous Waste (F River or Stream (R), Pond (P), Industrial Discharge (I), _____(X), _____(Y)

GENERAL TESTING CORPORATION/CHAIN-OF-CUSTODY RECORD ester, NY 14608 Hackensack, NJ Urounder Crolle Perforating Collection Site Day Cho (Soil borrow) Crolle Perforating City State Surce Peacher Signature GTC Job No. 70034 710 Exchange Street 85 Trinity Place Rochester, NY 14608 Sample Origination & Shipping Information Bottles Prepared by ______ Rec'd by_ Bottles Shipped to Client via CQuant Seal/Shipping #_ Samples Shipped via__ Seal/Shipping # __ Sample(s) Relinquished by: Received by: Date/Time 1. Sign 1. Sign for Sign 2. Sign for for Sign 3. Sign for for stosiano 1 18 87 Sample(s) Received in Laboratory by Sample Prep Analyte or Sample Location Client I.D.# Bottle Set(s) Analyte Group(s) Required Preserved Filtered Lab# (see below) Date/Time (see below for additional) Υ W 2 A 1/7/879:30 w 2 10:00 117187 W س 3 601,600 α L 4 16 187 8:30 5 Use Bottle No. for indicating type bottles used in each bottle set and fill in box with # of bottles used for each type. Bottle No. 1 2 3 4 5 6 7 8 9 10 11 Steril. Qt. 40ne. 40 ml Pint 4 oz. 8 oz. 16 oz. Qt. Gal. **Bottle Type Plastic** Vial Glass Glass **Plastic Plastic** Vial # of each

Shaded area for Lab use only; bottom copy for client; maximum of 5 samples per page.

Additional Analytes

* Source Codes: Monitoring Well (W), Soil (S), Treatment Plant (T), Drinking Water (D), Leachate (L), Hazardous Waste (F), River or Stream (R), Pond (P), Industrial Discharge (I), (X), (X), (X), (X)

GENERAL TESTING CORPORATION/CHAIN-OF-CUSTODY RECORD 710 Exchange Street 85 Trinity Place GTC Job No. 70034 Rochester, NY 14608 Hackensack, NJ 07601 Client Project No. _____ Sample Origination & Shipping Information Endle Perboratino Collection Site Day Eng. -Address _ City State Collector Bruce Print Bottles Prepared by Y 6 and 2 Rec'd by_ Bottles Shipped to Client via Luit Seal/Shipping #_ Samples Shipped via____ Seal/Shipping # _ Sample(s) Relinquished by: Received by: Date/Time 1. Sign 1. Sign for 2. Sign 2. Sign for for 3. Sign 3. Sign for for 118187@ Sample(s) Received in Laboratory by Tosano Sample Location Analyte or Sample Prep Client I.D.# Bottle Set(s) Analyte Group(s) Required Preserved Filtered Lab# Date/Time-(see below) at G (see below for additional) N - composite χ 602 5 2 117 187 12:30 3 5 3-composite Use Bottle No. for indicating type bottles used in each bottle set and fill in box with # of bottles used for each type. Bottle No. 1 2 3 4 5 6 7 8 9 10 11 40 ml Pint 8 oz. Plastic Qt. PL Qt 16 oz. Gal SteriL 4 oz. **Bottle Type** Vial Glass Plastic Plastic Glass 2 # of each Additional Analytes 3 for QC HOID

Shaded area for Lab use only; bottom copy for client; maximum of 5 samples per page.

* Source Codes: Monitoring Well (W), Soil (S), Treatment Plant (T), Drinking Water (D), Leachate (L), Hazardous Waste (H)
River or Stream (R), Pond (P), Industrial Discharge (I), _______(X), ______(X), _______(Y)

GENERAL TESTING CORPORATION/CHAIN-OF-CUSTODY RECORD 710 Exchange Street GTC Job No. _70034 85 Trinity Place Rochester, NY 14608 Hackensack, NJ 07601 Client Project No. _____ Sample Origination & Shipping Information - Erdle Perforation Collection Site Day Eng Address __ Collector Beuck Print Bottles Prepared by V Gardner Rec'd by _ Bottles Shipped to Client via Chient Seal/Shipping # _ Samples Shipped via (O. o. -Seal/Shipping # _ Sample(s) Relinquished by: Received by: Date/Time 1. Sign k 1. Sign for 2. Sign 2. Sign for for Sign 3. Sign for for Sample(s) Received in Laboratory by Sample Prep Sample Location Client I.D.# Analyte or **Bottle Set(s)** Analyte Group(s) Required Preserved Filtered Lab# I Date/Time (see below) (see below for additional) Ν 117 187 4:00 118 187 9:00 1 Use Bottle No. for indicating type bottles used in each bottle set and fill in box with # of bottles used for each type. Bottle No. 1 2 3 4 5 6 7 8 9 10 11 QŁ Pl. 40 ml Pint Qt. 8 oz. Gal. **Steril** 4 oz. 16 oz. **Bottle Type Plastic** Plastic Vial Glass Plastic

2

3

5

of each

Additional Analytes Cipalings NOLD 0, P. Q. S.

Shaded area for Lab use only; bottom copy for client; maximum of 5 samples per page.

* Source Codes: Monitoring Well (W), Soil (S), Treatment Plant (T), Drinking Water (D), Leachate (L), Hazardous Waste (H)
River or Stream (R), Pond (P), Industrial Discharge (I), ______(X), ______(X), _______(Y)

	710 Exchange Rochester, NY		85 Trinity						GTC J	ob No.	No	
	Sample Origina Collectio	ition & Shipp n Site_Dcc	- /-	mation	- F	cdle	Perb	orati			· · · · · · · · · · · · · · · · · · ·	
	Address			7	City	rdle	100) State	Pear	10-	Zip	_ `
	Collector	Stree Print	Pad	Ley				ruce		Signature	9	
	Bottles S	repared by hipped to C Shipped via	lient via _	حلىنم	,	s		ping #				
	Sample(s) Relin	quished by:				Red	eived by:	-		1	Date/Time	· ,
	1. Sign			2		1. S					119 189] .
	for 2. Sign	Vay Er	ig ne f	ving		f6	or Nan				11:40	-
	for						or					1
	3. Sign	•				3. S	·				1 1	1
	for	· · · · · · · · · · · · · · · · · · ·			0 -	fe	or	_ 				1
	Sample(s) Rece	lved in Labo	eratory by	حـــــــــــــــــــــــــــــــــــــ	270	san				119	/87 @_	11:4
	Client I.D.#		Location te/Time	*	Analyte (see be	Analyte o Group(s) low for ad	r Required Iditional)	Sam Preserve Y N	ple Prep ed Filtere		ottle Set(s) see below)	
_	16,0	4-wa	ter	JU SU	/ ->	160	_	X			1	
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2	10,9	2-w	ater	_ 			•					
_	KG	119	87 9:	1/5- Ju								
3	10 29	1-6	ater	-								
	¥H.	119	87 9:	45 Sw								
4	10 49	3-Wa1	her	6.3								
	地元	1191	81 10:	15 W								
5	4617	No	Sem	ele-	_							
	χ	<i>i</i> ,	' : '							1		
	Use Bottle No. fo	or indicating	type bott	les used i	n each b	ottle set a	ınd fill in	box with	# of bottle	s used fo	or each type).
	Bottle No.	1	2	3	4	5	6	7	8	9	10	11
	Bottle Type	40 mi Vial	Pint Glass	Qt. Glass	4 oz. Plastic	8 oz. Plastic	16 oz. Plastic	Qt. Pl.	Gal Pl.	Steril. Pl.		
	# of each	ا ا										
	Additional Analyt	tes	alips	T	·- u)						
	Shaded area fo	or Lab use o	only; botto	om copy fo	r client; r	naximum	of 5 sam	ples per	page.			
•	Source Codes	: Monitoring River or St	ream (R), I	୦୦୩ (୪), I Pond (P), I	reatment ndustrial	r Plant (T) Dischard	, vrinking 1e (1).			te (L), Ha K),	zardous Wa	aste (H) (Y)

APPENDIX B

TABLE B-1 Bore Hole Location 1

Depth (ft.)	Soil Characteristics	Blows/12		
1	Black; high organics; looks like fill; slight organic odor observed	50 (16")		
3	Upper: clayey silt with some sand Lower: hard red clay	20		
5	Hard red clay with gray speckling	90		

TABLE B-2 Bore Hole Location 2

Depth (ft.)	Soil Characteristics	Hammer Blows/12"
1	<pre>Sandy clayey loam; high organics; black; slight organic odor observed</pre>	35
3	Layered Top: same as above Middle: brown clay followed by gravelly sand Bottom: hard red clay	33
5	Hard red clay with gray speckling	100

TABLE B-3 Bore Hole Location 3

Depth (ft.)	Soil Characteristics	Hammer Blows/12"
1.3	Upper: sand Lower: clay	33
3	Sandy soil; black; high organics	30
5	Top: black silty material Middle: marbled Bottom: hard red clay with gray speckling	40
7	Hard red clay with gray speckling	100+*

^{*} Estimated

TABLE B-4 Bore Hole Location 4

Depth (ft.)	Soil_Characteristics	Blows/12
1	Upper: black organic soil Lower: sandy clay	14
3	Hard red clav	_

TABLE B-5
Field Information

	Bore Hole Location Number					
	1	_2_	3	4		
Bore hole depth	78 "	72"	96"	60"		
Depth to groundwater	11"	7 "	9"	7"		
Boring depth at time of groundwater sampling	25 ⁿ	22"	36"	25"		

APPENDIX C

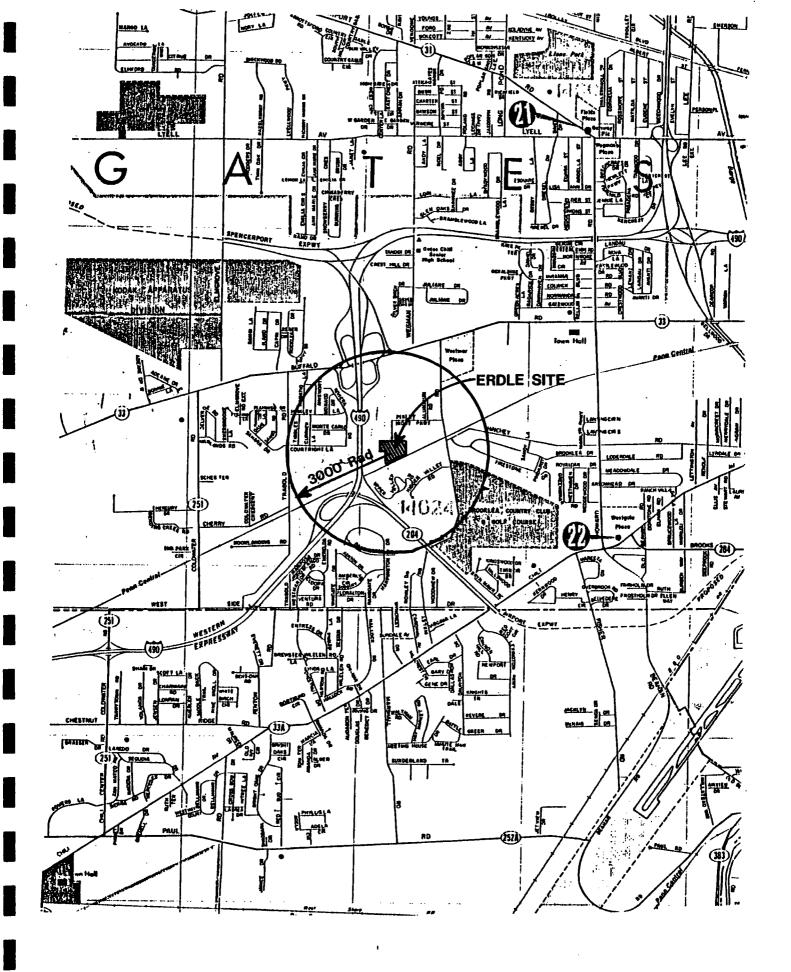
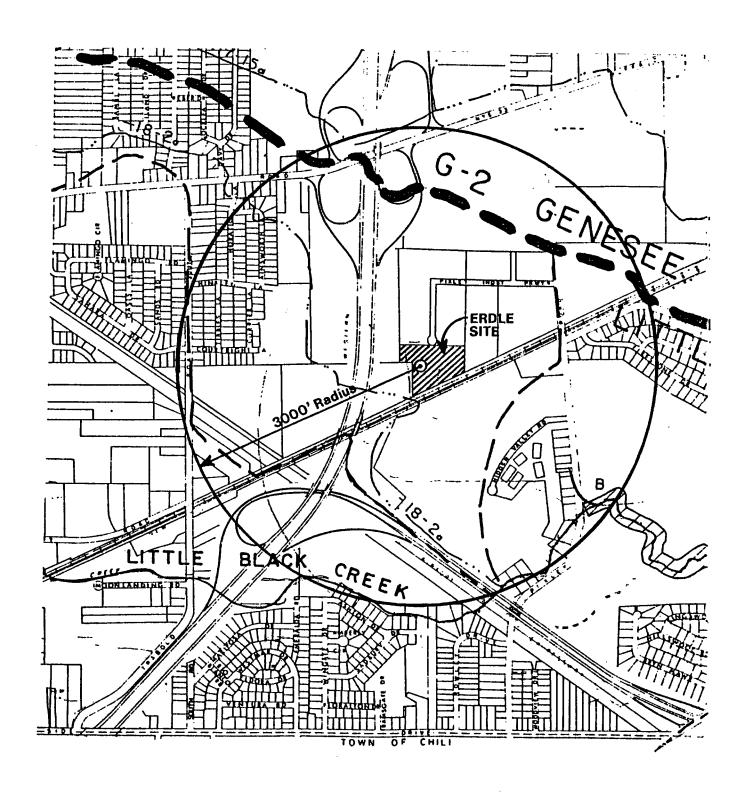


Diagram C-1



State Case	1. EPA Case No. 349-27
2. Repo	ed: (mm/dd/yy) 020587 3. Time: 455 Recorded By: Kalandaria
4. Throug	NRC: Yes 146 5. NRC Case No.:
	6. Reported By:
·ee	7. Organization Name: Dog Evalue of ind Court tout
A. Reporter	8. Organization: 9. responsible party 10. public 11. state 12. local 13.federal
4₽	14. Address: 790 Exchavaest
분	15. City: ROCNESTET 16. State: 14/17. Zip: 14/17
	18. Phone: (7/6) 325-6900
_	19. Responsible Party: ETC P Perforative
	an Address: a 100. Divior Induction of Parkulais
.DIS- CHARGER	21. City: Kochester 22. State: N 123. Zip: 14574
ਠ	24. Phone: (7/6) 247-4700
<u> </u>	25. As Above in B 26. Street or Approx. Location:
C. INCIDENT LOCA- TION	
27F	27. City: 28. County: VONTO C 29. State:
	30.Spill Date: (mm/dd/m) 012887 15 Noticed 31. Spill Time:
	CHRIS Quantity Units
¥	b m
- <u>E</u>	2 FUNDED ET NO 1842 22 25 35 114 V 37 W ON
E. Material	50 40 41 42 13 bbl off
	M. 45. 46. 47. 48. 19_ bbl. oth
	Source of Spill: 50, highway 51, air 52 railway 53, vessel 57. Vehicle ID or Carrier No.:
5	54. fixed facility 55. pipeline 56. offshore
F. BOURCE	58. Description:
G. MED.	Medium Affected: 59. air 60. land 61. water 62. groundwater
3	63. Waterway Affected
	Reported Cause: 64. transportation accident 65. equipment failure 66. operational error
. M	67. natural phenomenon 68.dumping 69. unknown 70. other
H. CAUSE	71.Description:
2042	Damages: 72. no. of injuries 73. no of deaths 74. property damage > \$50,000 per no
	75. Evacuation 76. Response Action Taken: Taylor Cuntil Control Contro
ACT.	showed leakage from might tout
	Celler Has Notified: 77a. state 77b. local 78. responsible party 79. USCG 80. other 81. unknown
FED T.	□ EPA □ NRC Agency Name
	Total la de la
. ± E	oz continuito.
COS.	Ceased using to un 1686 Additional information
<u> </u>	
, g	Responsibility:
M. REGIONAL DATA FIELDS	Agency Name:
PA	EPA Has Notified: State USCG RAT EPA Referral RCRA
1	POLREP SPCC Letter CWA 308 Spill Letter TDD No.:
I	Regional Cause Code(s): Prevention Code(s):